

2013 Purdue Road School



BURGESS & NIPLE



COWI



Tom Bolte, Burgess & Niple

Murray Johnson, Buckland & Taylor

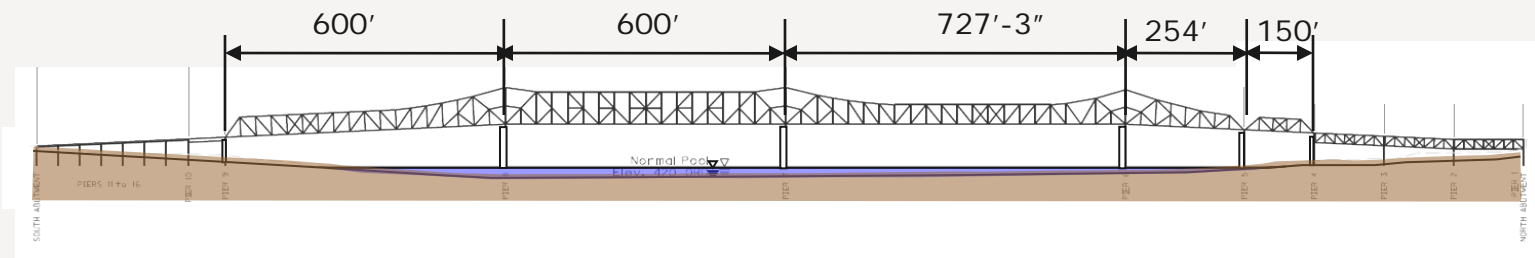
Doug VanSlambrook, Walsh Construction



Design Team

- › Burgess & Niple
 - › Design Management
 - › Truss Pier Modifications
 - › Approaches
 - › Temporary Ramps/bridges
 - › Inspection access
- › Buckland & Taylor
 - › Truss Design
 - › Temporary Piers for Truss
- › HC Nutting/Terracon – Geotechnical
- › RWDI – Wind Review

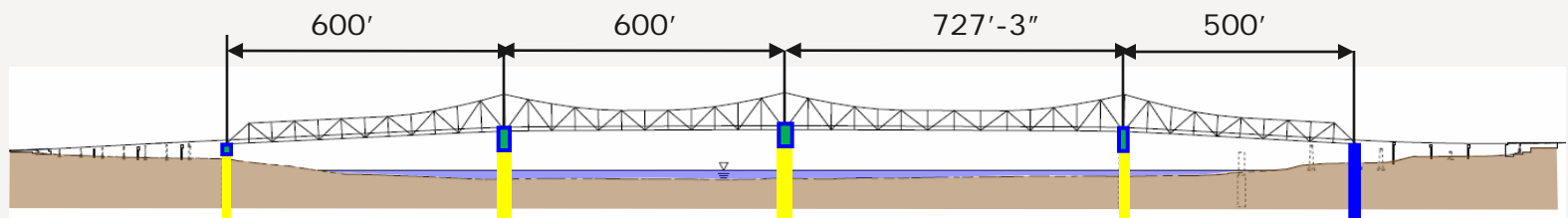







Milton, KY

Existing Bridge

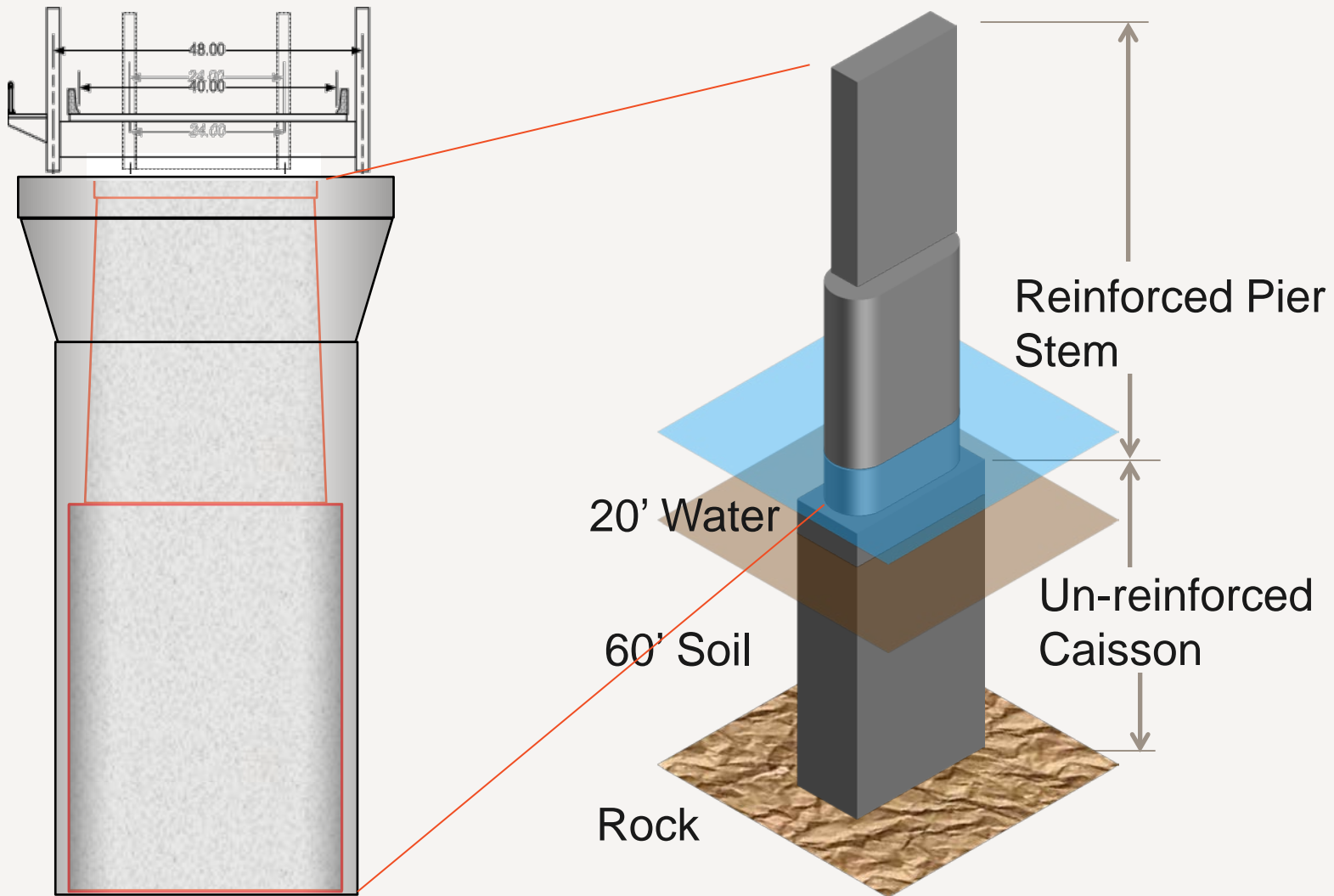
Madison, IN



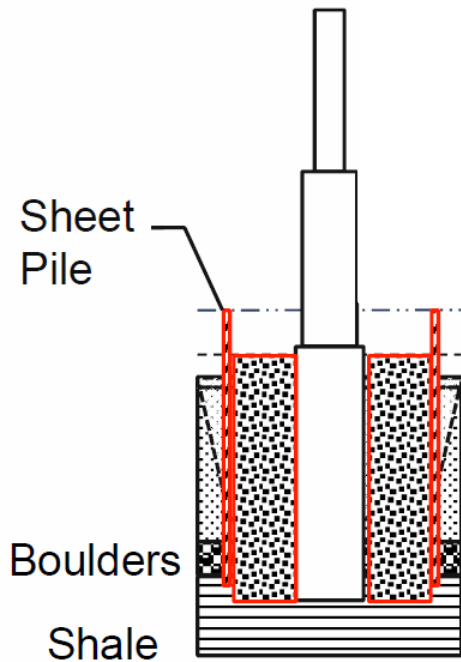
Proposed Bridge

-  Strengthen Existing Pier
 New Pier Cap
 New Pier

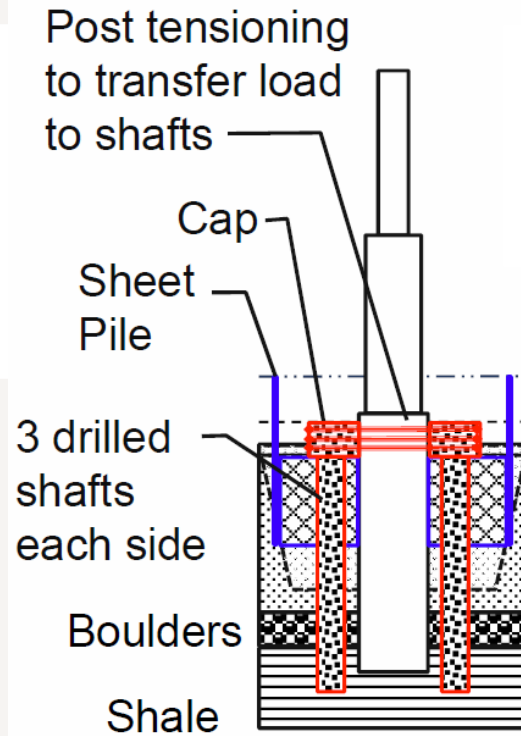
VIDEO OF CONSTRUCTION SEQUENCE



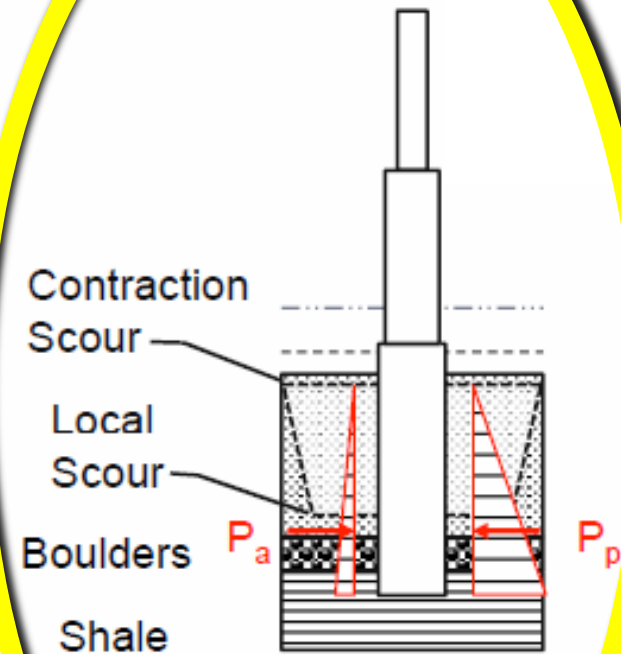
Pier Strengthening



Encasement

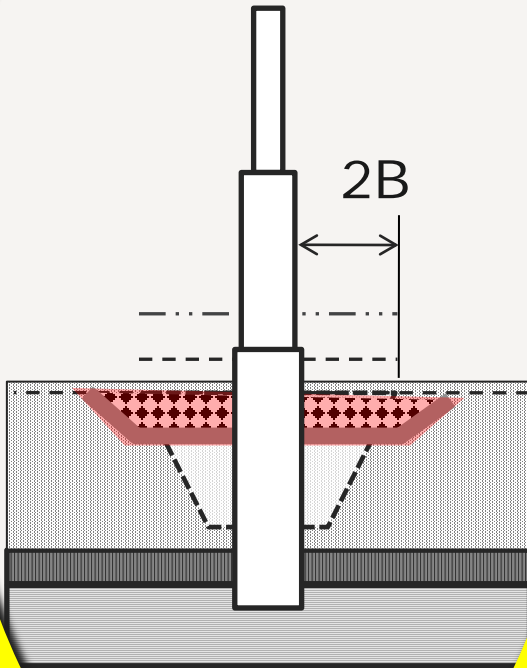
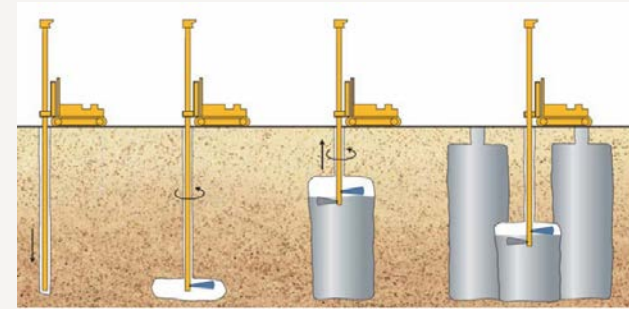


Drilled Shafts

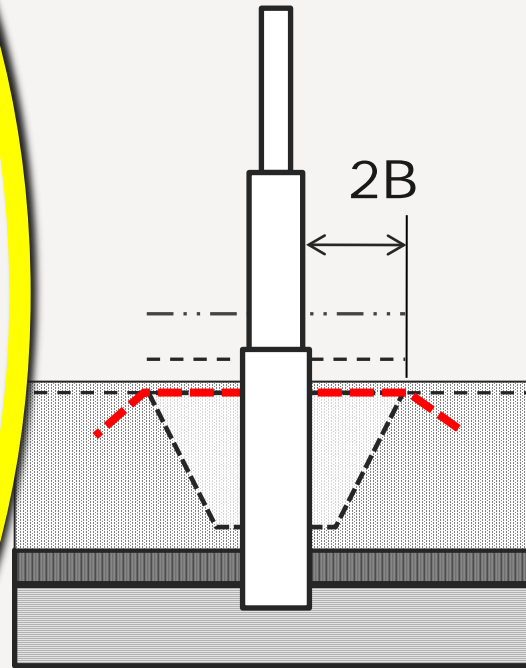


Soil Response

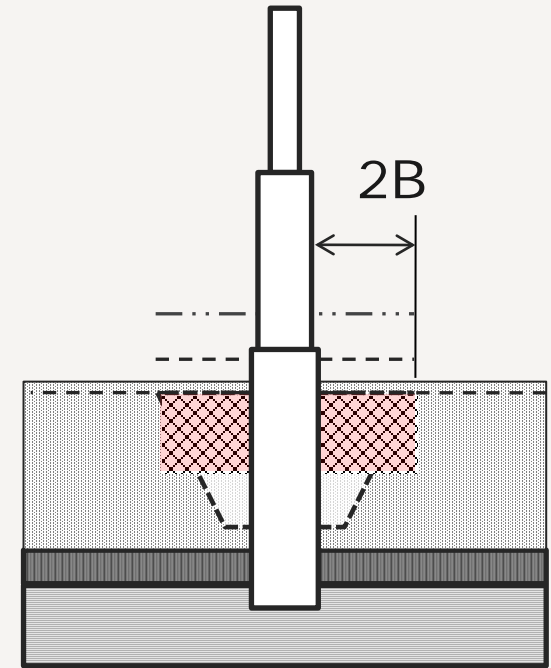
Pier Strengthening: Scour Mitigation



Rip Rap
with Filter



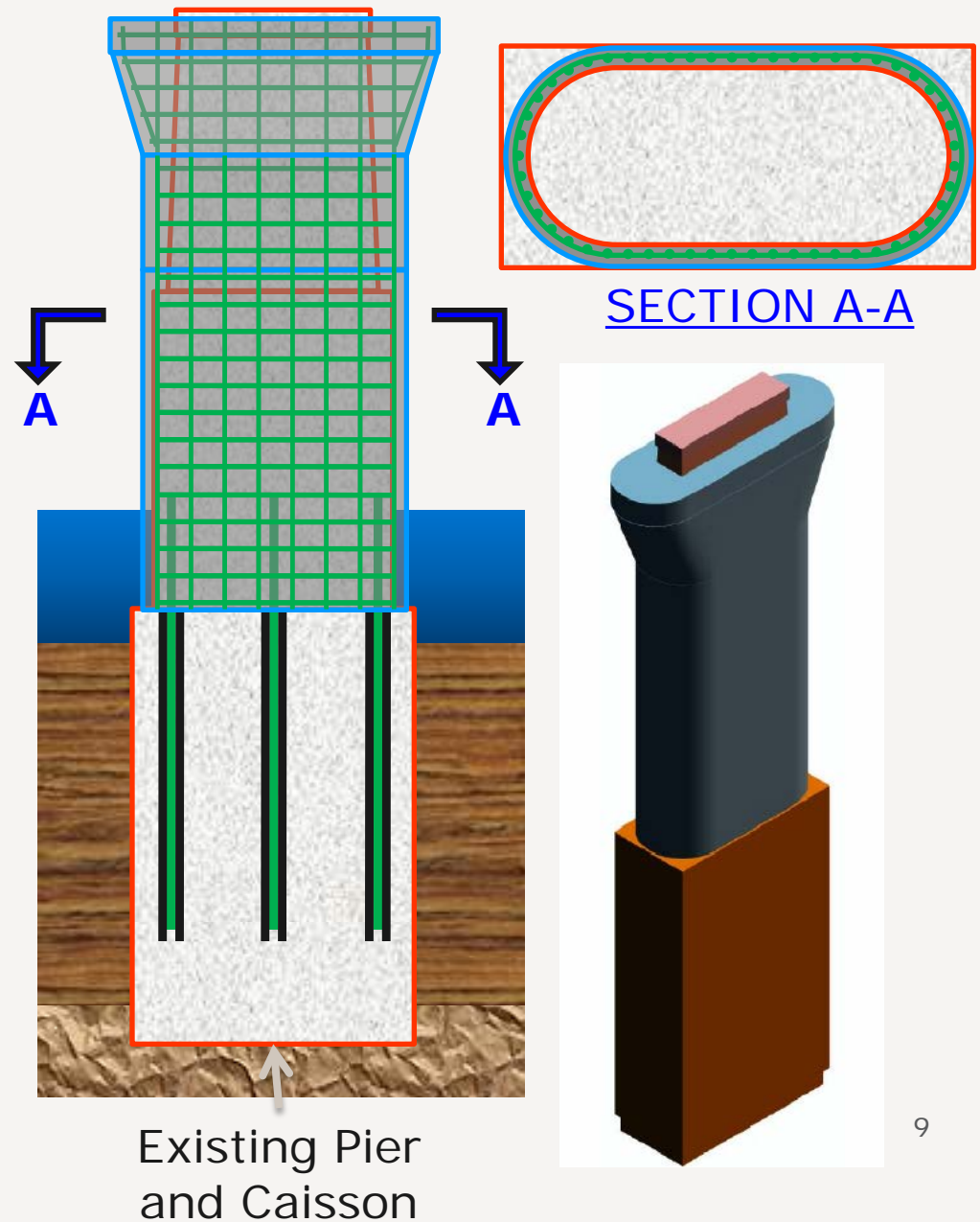
Articulated
Block Mat



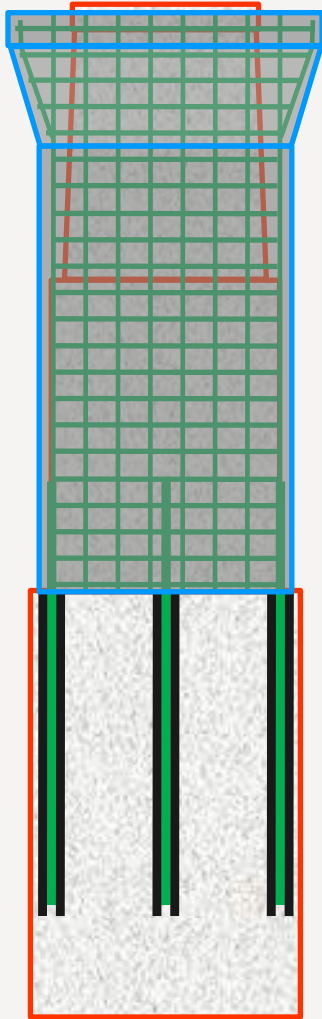
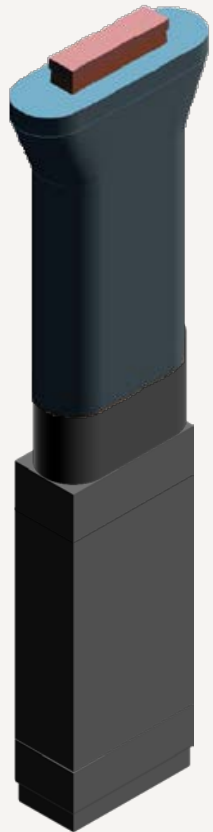
Jet Grouting

Pier Strengthening

1. Drill holes into existing unreinforced caisson
2. Grout Rebar into Caisson
3. Add Stem Reinforcement
4. 2' thick encapsulation
5. Pier Cap Reinforcement
6. Form and Cast new Pier cap



Pier Strengthening



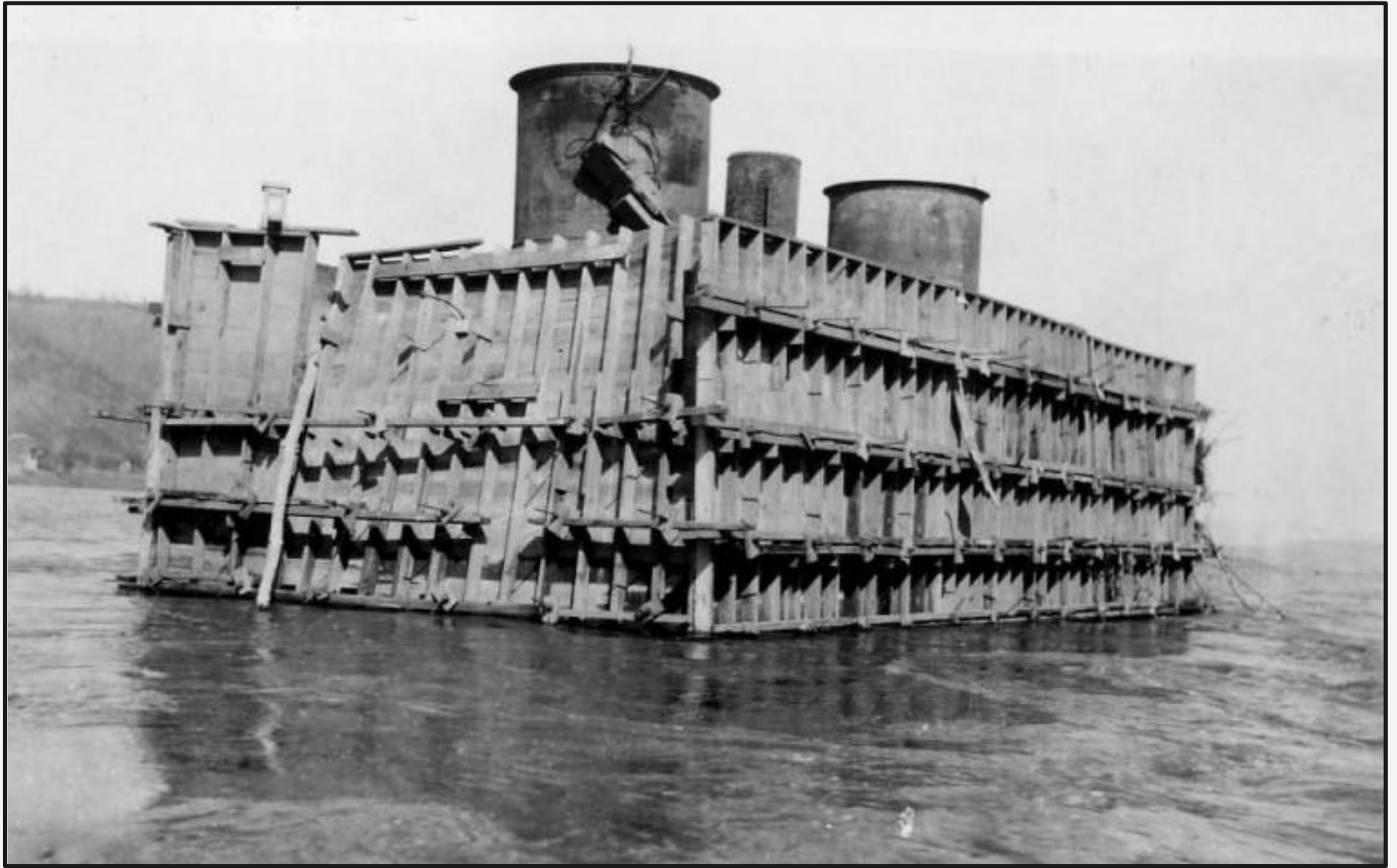
Pier Strengthening



Video of Hole Investigation





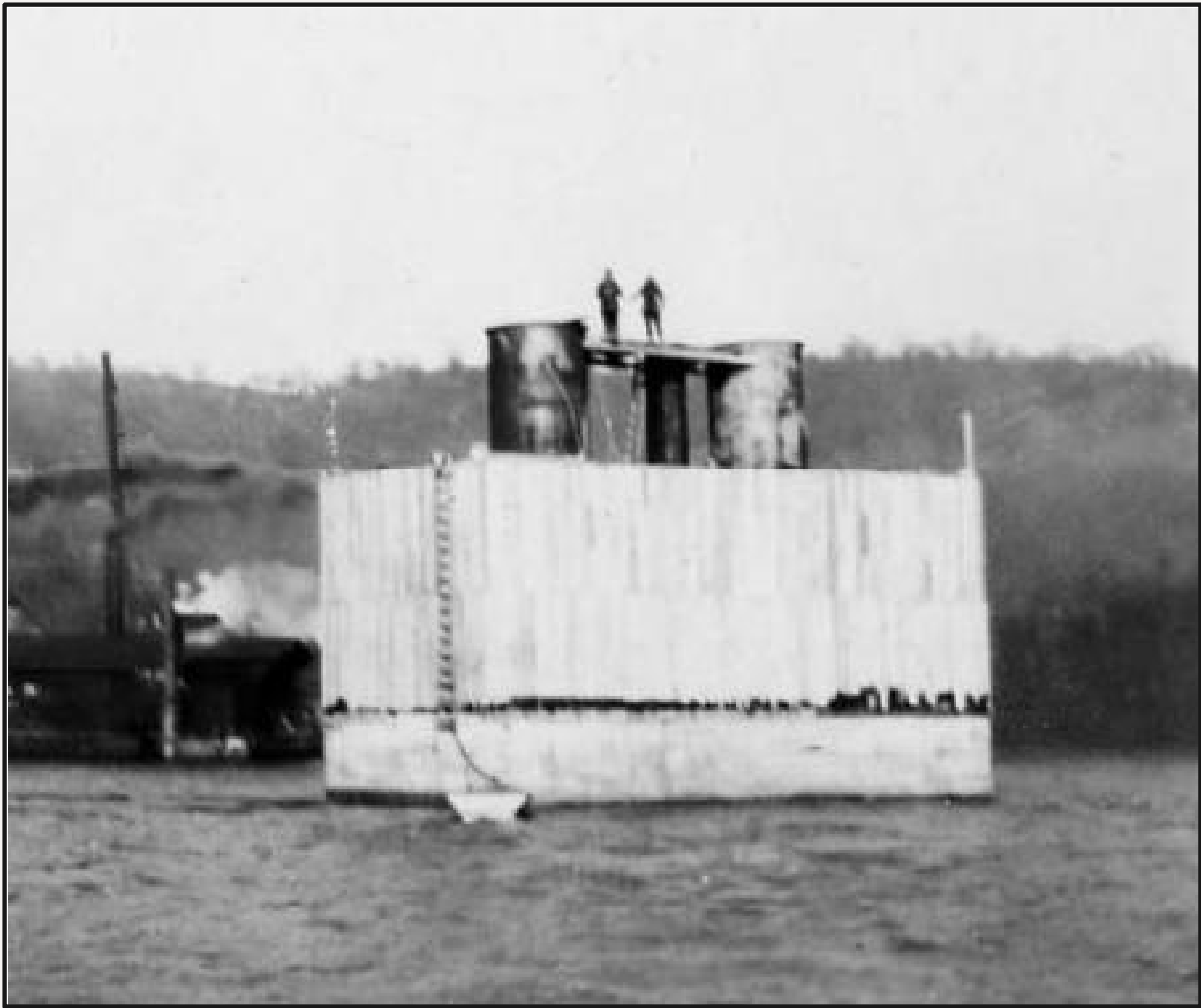


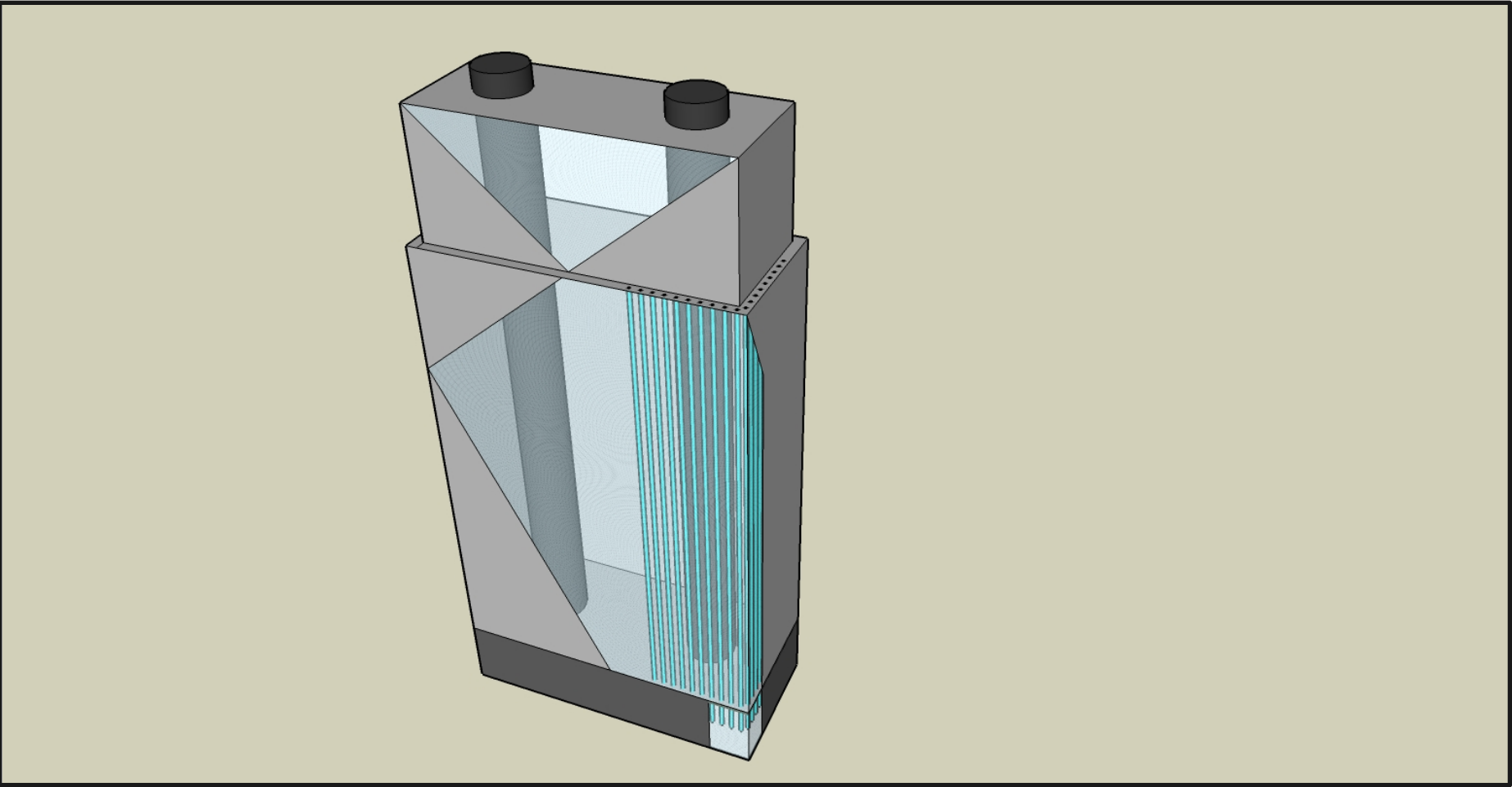
BUCKLAND
& TAYLOR

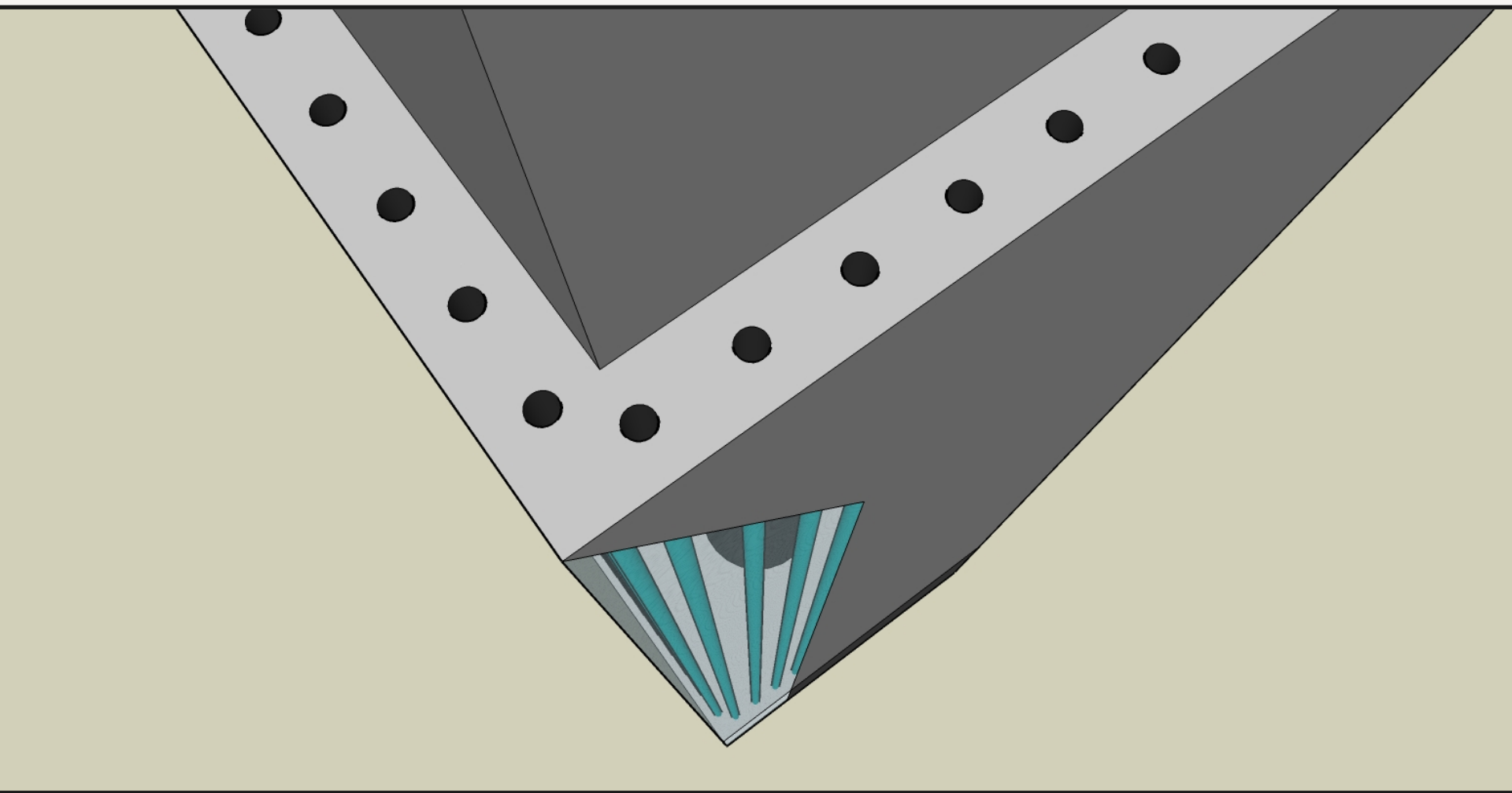
COWI

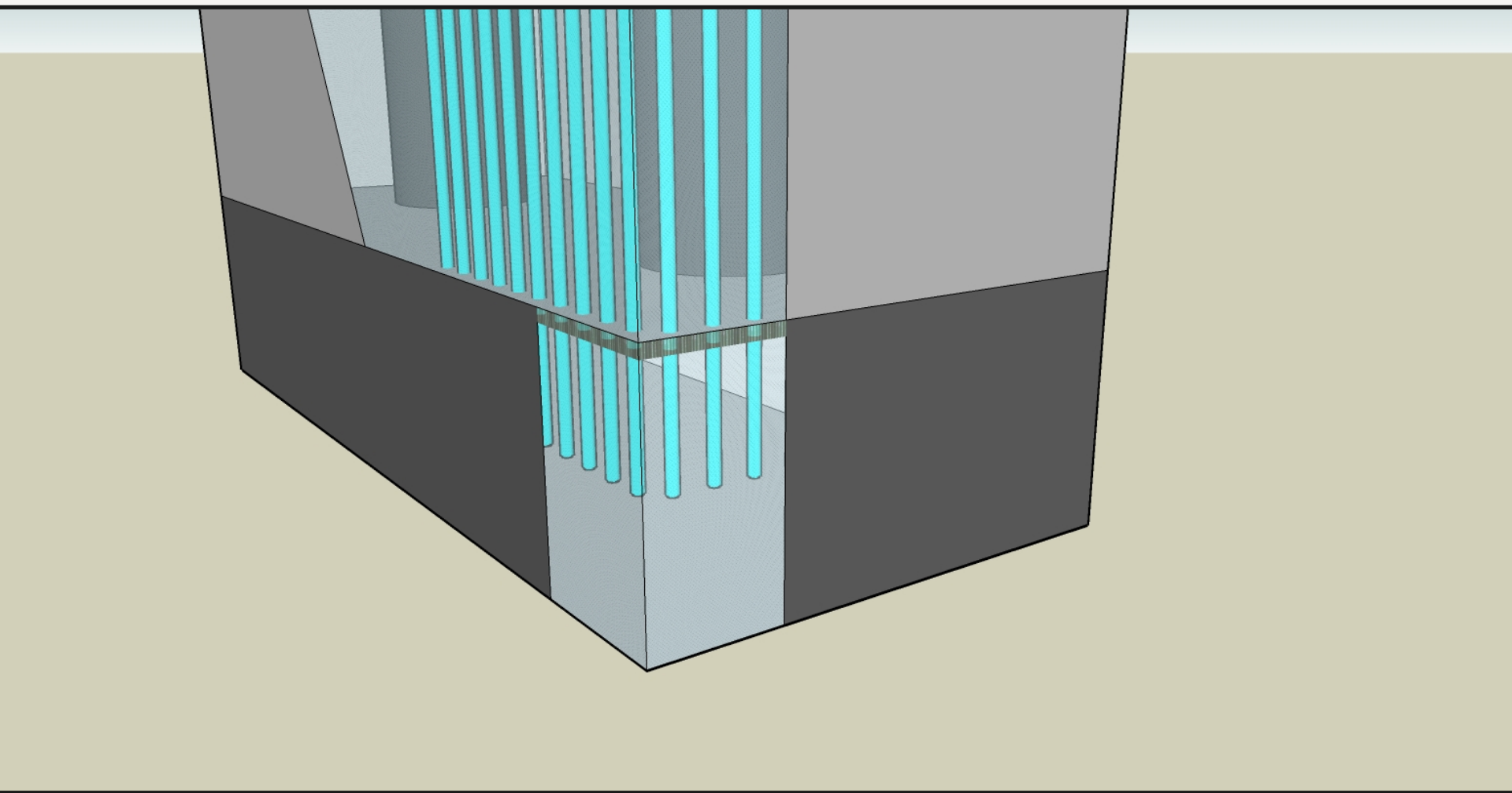
BURGESS & NIPLÉ

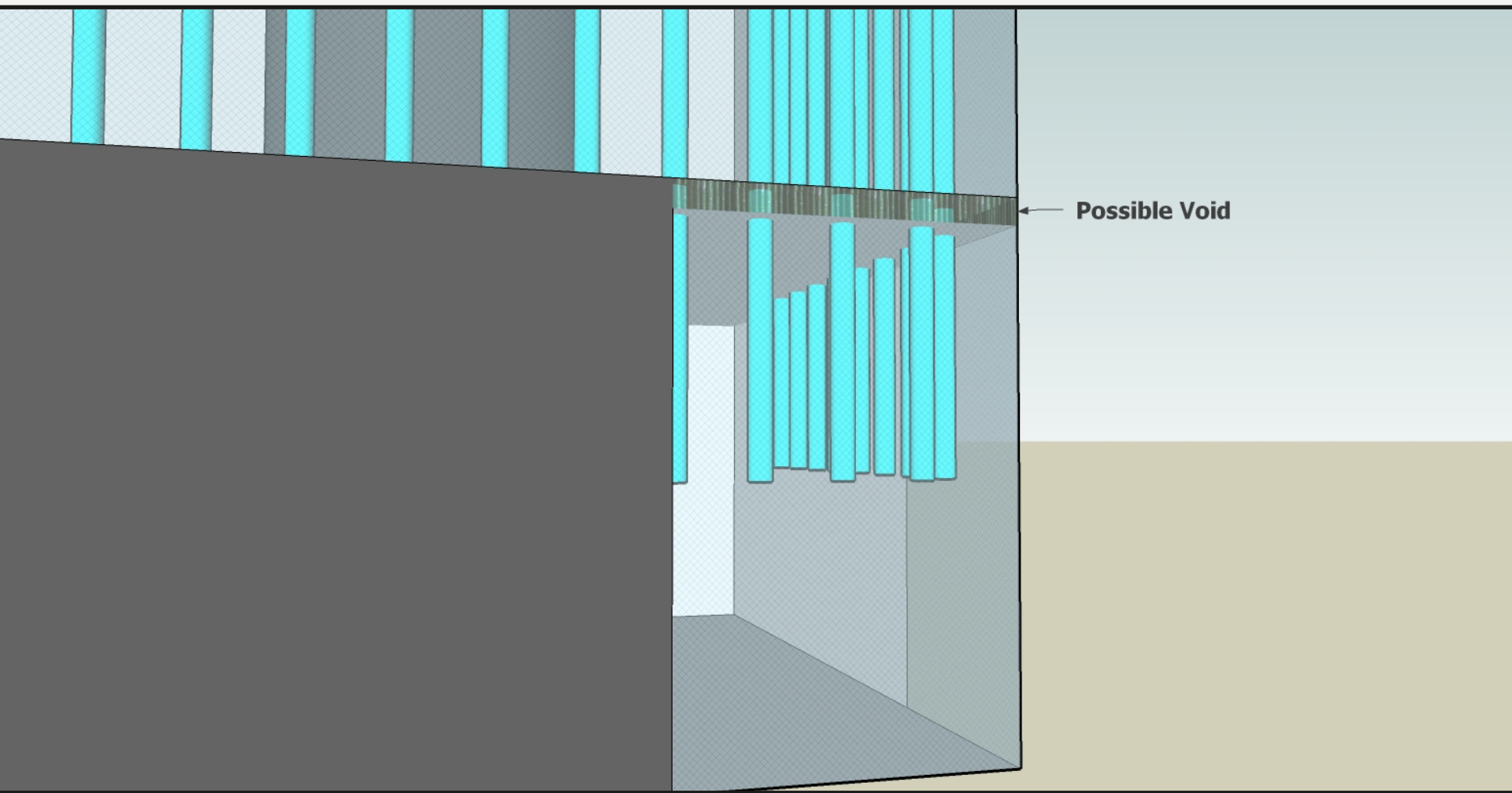
WALSH











Possible Void











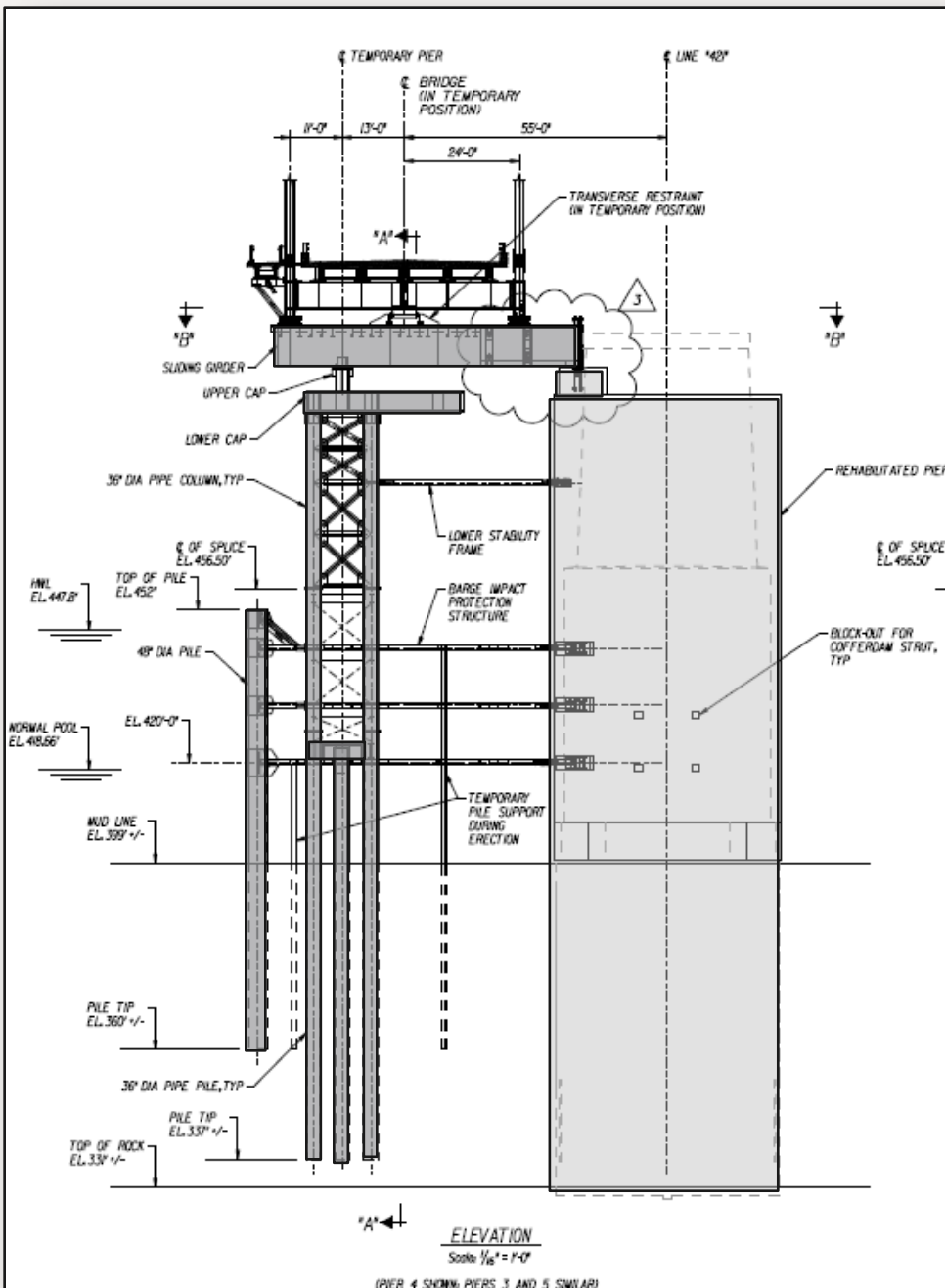
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Charlie Gannon

Courtesy of Walsh construction

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& TAYLOR

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